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UNIVERSITY OF ALBERTA

THE ROLE OF EDUCATION IN IMMIGRANTS' ADAPTATION

BY

HYEJA LIM

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES AND RESEARCH IN

PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF

MASTER OF EDUCATION

IN

SOCIOLOGY OF EDUCATION

DEPARTMENT OF EDUCATIONAL FOUNDATIONS

EDMONTON, ALBERTA

FALL 1993

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ISBN 0-315-88097-X

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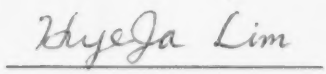

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ABSTRACT

This study attempted to verify the thesis that receiving post-secondary education in Canada contributes to the successful economic adaptation of immigrants. Using 1986 Census data, it compared differentials in income and occupational status of immigrants who received their bachelor's degrees in Canada and those who received such degrees in other countries. From the data analysis, it was found that immigrants with Canadian bachelor's degrees had higher income and occupational status than immigrants with foreign degrees, and this tendency was more apparent among members of visible minority groups. The findings of this study suggest that immigrants, especially those of non-European ethnic origins, benefit from receiving Canadian post-secondary education in improving their economic status in Canada.

ACKNOWLEDGMENT

I wish to express my appreciation to Dr. Assheton-Smith for her valuable guide and continuous interests in this work. Likewise, I am indebted to Dr. Decore for her encouragement and technical advice in the initial research design. I would also like to thank Dr. Krahn for his reviewing this work. Finally, I owe my deepest appreciation to my husband, Jin Kim, whose consistent encouragement has been the most important motivation for me to complete a M.Ed. program.

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CHAPTER I. INTRODUCTION

STATEMENT OF THE PROBLEM

Immigrants play an important role in Canadian society. In many cases, immigrants supply labor which native Canadians cannot or do not want to provide. Also, they adjust the demographic imbalance of the Canadian population, which is the result of a declining fertility rate and an aging population. They work hard, pay taxes, buy cars, houses, and other goods to boost the domestic market, and thus contribute to the growth and development of the Canadian economy. Based on these kinds of observations, many research studies suggest that they contribute more than they become a burden to other Canadians.

In selecting immigrants, Canada prefers educated or skilled young adults, and as a reflection of this, Canadian immigrants are young and well educated, at least in terms of years of schooling. On the other hand, the high standard of living and political and social peace of Canada attract immigrants. Immigrants come to Canada with great expectations, hoping to live better lives than in their home countries. However, when these immigrants arrive in the new country, they often find a hard reality in which they are not welcome to the jobs in which they used to work.

It has been alleged that immigrants, especially those who come from countries other than the U.S., the U.K., and northwestern European countries, tend to experience underemployment given their educational attainment. There are a number of reasons which may account for this phenomenon; their limited command of the official languages of Canada, their lack of a social network, or discrimination

against them. But inadequate recognition of academic and job-training credentials received in their home-countries seems to be one of the most critical elements impeding the satisfactory adaptation of these immigrants to the Canadian labor market.

Receiving Canadian post-secondary education may help those immigrants be more easily incorporated into the Canadian labor market and at levels which are more satisfying to them, since it provides better credentials and an effective socialization. To examine this thesis, this study aims at providing a demographic description of the existing reality in which immigrants educated in Canadian post-secondary schools obtain higher job status and income than immigrants educated in such schools outside Canada. Also, to clarify the truth of the allegation that visible minorities and women are more likely to be underemployed in Canada, these groups are disaggregated in the analysis.

METHODOLOGY

Using the 1986 Census data, this study tests the hypothesis that immigrants who possess Canadian bachelor degrees are more likely to earn higher income and to be placed in higher occupational status than those immigrants who possess non-Canadian bachelor degrees. Also, it examines whether or not the benefit of having Canadian bachelor's degrees in improving their income and job status is greater among immigrants of non-European origin than European origins. To test this hypothesis directly, data on the demographic characteristics of immigrants as well as on the place where their bachelor's degrees are conferred would be necessary. However, for the reasons that I address

in Chapter III, direct information on the place of bachelor's degrees conferred by immigrants was not available. Therefore, using the 1986 Census data, this study derives the information in an indirect way by utilizing a created variable (WHEREDUC) under the following assumptions: if people who have immigrated to Canada before age 20 possess bachelor's degrees they probably have received those degrees in Canada; if people who immigrated to Canada at or after age 20 possess bachelor's degrees these degrees were more likely to have been received in their home countries.

Foreign born people whose ages fall between 20 and 64 and whose highest level of schooling are reported as bachelor's degrees are selected from the 1986 Census Public Use Sample Tape (a 2% probability sample of the total Canadian population), and divided into two groups according to their memberships in the two WHEREDUC (the place of the bachelor's degrees conferred by immigrants) categories. After further adjustment by age at immigration is made, a total of 3748 individuals are selected for analysis. The income and occupational status of the sample population are analyzed by ANOVA and CROSSTABS according to their ethnicity, WHEREDUC, and gender. The findings of the analysis are summarized in Chapter III. The descriptions of the research design including sample procedure and the limitations of the study due to the utilization of the variable WHEREDUC in testing the hypothesis are also provided in Chapter III. Background material for these chapters, the aim and significance of the study as well as the review of the literature, are stated in Chapter II.

CHAPTER II. REVIEW OF THE LITERATURE

In this chapter, general demographic information on recent immigrants, their role in Canadian society, the barriers to adaptation they perceive, and finally the role of education as a way of redressing immigrant inequality are examined.

DEMOGRAPHIC CHARACTERISTICS OF RECENT IMMIGRANTS

Canada selects immigrants according to family class and refugee or independent status, within social and humanitarian concerns. Family class immigrants are sponsored by family members living in Canada, refugees are chosen on the basis of their need for protection and their potential for eventual self-sufficiency in Canada (Belyea, 1991:30), and independent immigrants are selected by their skills or investment potentials. Just over 17 per cent of immigrants entered between 1978 and 1987 have been admitted as refugees, 40 per cent have arrived in the independent class, and about 43 per cent in the family class (Canada, 1988:4). The number of people entering Canada has varied over the past decade from a low of 84,331 in 1985 to approximately 152,000 in 1987 (Canada, 1988:4). The Canadian government controls immigrant entrance in accordance with its assessment of the country's economic and social needs, and the number of immigrants has varied yearly, reflecting this control (Driedger, 1989:76).

Before World War II, immigrants came from Europe, but immigration from Asia, Africa, and Latin America has been increasing since the 1960s. During the last few decades, the proportion of immigrants from these "non-traditional" sources has expanded, while the proportion

from traditional sources such as Europe and the United States has shrunk (Canada, 1991:21). The most recent source of large immigrant groups has been Asia. Almost none (.8 %) came from Asia between 1926 and 1945, but beginning from 1976 to 1980, almost one-third (31.7 %) of all immigrants came from the Far East (Driedger, 1989: 78). Foot predicts in his study on Canada's age-directed immigration program that a large source of future immigration will be from Africa, Latin America, and Asia (Foot, 1986: 17). Also, it is projected that visible minorities will comprise 9.6% of Canada's population by 2001 if present immigration trends continue (Samuel 1988 cited in Elliott and Fleras 1992:228). Immigrants from non-traditional countries (mostly from developing nations) immigrate to Canada, because 1) excess population in their native countries limits employment opportunities; 2) the high standard of living in Canada attracts them; and 3) political and social unrest motivates them to leave their countries (Canada, 1987).

The implication of this immigrant demographic change is the increasing presence of immigrants of Mongoloid and Negroid races, whose religions are primarily Buddhist, Muslim, or other non-Christian (Driedger, 1989:79). Since Canada is comprised mainly of "Christian Caucasians of European ethnic stock" (Driedger, 1989:79), it is suspected that those immigrants from non-European sources face difficulties in adapting to Canadian society; as newcomers and as ethno, racial, national, lingual, cultural, and religious minorities, they face more struggles than those from the traditional, European source countries. As a natural result of utilizing a point system that favors young adult immigrants, young adults are the most numerous

among recent immigrants; nearly half of immigrants who came to Canada fell between the ages of 20 and 39 years (Canada, 1991:21).

Immigrants who arrived since the World War II are better educated than those who arrived before (Porter 1979: 59). In an analysis of educational attainments of immigrants who arrived between 1946 and 1986, immigrants aged 15 years and over show a higher proportion of people with university education compared with the native-born Canadians (deSilva, 1992:6).

ROLE AND IMPACT OF IMMIGRANTS IN CANADIAN SOCIETY

Immigration plays an important role in Canadian society; it positively impacts economic, demographic, and cultural development in Canada.

Economic Impacts

Various studies show that immigration provides more benefits to the growth and development of Canada than its cost. Although there was concern about that newly sponsored immigrants (family or close relative sponsored) could become an economic burden to Canada (Driedger, 1989:76), Samuel concluded that family class immigrants in their early years did not fare badly, and with the support they received from their relatives they are adapting reasonably well without being a burden on the government (Samuel, 1988:20). Census data for 1986 show that Immigrants have a lower unemployment rate than the native-born, and the number of welfare recipients among recent immigrants is small and not significantly different from that of the native-born Canadians (deSilva, 1992:11,17; Canada, 1987).

The majority of immigrants bring funds with them to spend on housing, food, clothing, and durables, thus providing a boost to the economy (Canada, 1987). Immigrants to Canada (business immigrants aside) currently bring close to a billion dollars annually into the country (Canada, 1987). Immigrants from Asia, Africa, and Latin America have particularly high rates of net transfer to the Canadian treasury, according to the 1981 Census (Canada, 1987).

According to a study by Employment and Immigration Canada, immigrants create more jobs than they take on arrival (Canada, 1987). In the long run (five to seven years after their arrival), immigrants have a higher labour-force participation rate and generally work longer hours than the native population (Canada, 1987). Also, immigrants frequently take jobs that are not accepted by residents and accept jobs at distant and remote locations (Canada, 1987). Immigrants (i.e.. European, West and Far East Asian) are more self-employed than those born in Canada (Canada, 1987). DeVoretz concluded in his study on immigration and employment effects that immigrants do not cause major job displacement of Canadian-born workers (DeVoretz, 1989: 26).

Research done by Employment and Immigration Canada also indicates that immigration increases domestic markets and investment potential (Canada, 1987).

Demographic Impacts

Immigrants correct the demographic imbalance of the Canadian population, caused by a declining domestic birth rates and an aging population. Continuing low fertility means that immigration is the

only way to reach an optimum level of population, predicted to be 26 million (Canada, 1987). It is important to maintain an adequate population size for Canadian economic development and growth, since it enables the government to invest in large scale key-industries such as public transportation, as well as provides necessary income (tax) for government. Also, young adult immigrants provide an active labor force in the Canadian labor market.

The Canadian economy has been in trouble because of its need to catch up in the rapid development of technology associated with post-industrialization, and the Canadian education system has failed to produce sufficient manpower that is fit for this new economic market (Porter, 1979). As in other advanced economies, the Canadian industrial structure increasingly favors service-producing industries over goods-producing industries, and many new jobs are being created in sectors of the economy which rely heavily upon individuals trained in the technologies and trades (Alberta, 1990). Skill requirements are increasing, but the overall quantity of qualified entry-level workers are declining due to a lack of appropriate training (Alberta, 1990). One in four Canadian workers is considered functionally illiterate (Alberta, 1990). Canada is also lagging behind other developed nations in academic performance, especially in mathematics and science (Alberta, 1990).

Based on these observations, it can be argued that the Canadian economy depends on immigrants to make up a shortage of highly-skilled manpower. However, a counter argument is that immigrants constitute a "reserve army" of cheap labor, as they fill low-skill and low-wage

jobs and their upward mobility is limited in the Canadian economic structure (Richmond cited in Seward and Tremblay, 1989: 2).

Sociocultural Impacts

Immigrants originating from different areas of the world enhance Canadian cultural pluralism. Also, immigration helps Canada foster friendly relationships with other countries. Existing cultural diversity may allow Canada to pursue trade expansion by way of its rich base of multicultural human resources; particularly qualified persons from its diverse ethnic minorities, who are conversant in the various languages of the world and enhance political, cultural and commercial relationships (Canada, 1987).

ADAPTATION BARRIERS FOR IMMIGRANTS

Although there would be within-group and between-group differences, seven adaptation indicators generally apply to immigrants, especially those originating from non-traditional source countries. These include differences from the rest of the Canadian population in the areas of language, credentials, discrimination, underemployment, changing family roles, mental health, and immigrant women's challenges.

Language

During the past decade, an average of 43% of all immigrants arriving in Canada in a given year have spoken neither English nor French (Canada, 1988:23). Refugees are less likely to speak one of Canada's official languages than family class or independent immigrants. On the whole, more women than men arrive in Canada speaking neither English nor French (Canada, 1988:24). Also, many immigrants listed on immigration statistics as knowing English require

further English instruction before being able to function in the job market (Canada, 1988: 25).

Settlers in Canada who cannot speak official languages are more likely to be unemployed than those who do. Newcomers who, despite their language handicap, succeed in finding a job are likely to be underemployed, working at a level below that expected of persons with equivalent training (Canada, 1988). Also, language is an important variable in successful integration into mainstream Canadian culture. Thus, language training is essential for employment and social adaptation. However, the English as a Second Language (ESL) training has not been very helpful in solving immigrant language problems. Government sponsored ESL programs are focused on "survival language" (Canada, 1988: 27) or functional language. Higher level ESL programs including TOEFL preparation courses are needed to help immigrants who are discouraged by language and to assist those who should upgrade their qualification in higher educational institutions.

Credentials

Many immigrants from non-traditional world experience a downgrading of their academic and occupational credentials. Generally, professional credentials from nations other than the United States, England, or, to some degree, western Europe are not freely recognized by Canadian authorities, whether in government or in professional associations (Forcese, 1986: 51). Partially, this is because the standard of education they received may be lower than that of developed countries. But also, adjudication of the credentials of

foreign-trained persons could be vulnerable to bias due to the subjectivity of the process employed (Canada, 1988: 32).

Some professions - nursing, accounting, law - do not permit those who have trained abroad to write certification exams until they have taken re-training (Canada, 1988: 32). As a result, such professionals find that they must give up seeking their intended jobs since requalification through upgrading may not be feasible. They may not have the language facility to attend higher levels of education, and they are often overworked due to low working wages so they have neither time nor money for further training. Practical problems also arise. For example, refugees quite often lose their documents with which to prove acquired education and skill. These documents are hard to reattain, often because of high cost or political upheaval in their home country (Canada, 1988: 33).

Any alleviation of these difficulties requires objective evaluation criteria and information about the relative equivalencies of foreign educational systems (Canada, 1988). Also systematic research on policy that minimizes the loss of immigrants' cultural capital (educational credential) and more flexible policies for admission to training institutions including higher education agencies would need to be done.

Discrimination

Research provides evidence that white Caucasians, largely of European origin, are preferred to aboriginals, blacks, and Asians of colored or Negroid and Mongoloid racial origins in Canada (Driedger, 1989: 356). Ramcharan found racism toward Arabs, Chinese, East

Indians, Filipinos, Japanese, and West Indians. He explained the origin of discriminatory behavior in terms of institutionalized prejudice that relates visible minority group membership to an inferior socioeconomic status and to Canadians seeing them as strangers (Ramcharan, 1982). A study shows that a person's social honor or respectability is influenced by ethnic origin, even though occupational status or other achieved characteristics are deemed more significant (Goldstein, 1985). Employers prefer people who speak with British accents. Rayko and Kalin found that people speaking with other foreign accents are more likely to be discriminated against on the job market than their counterparts with English-Canadian accents (cited in Lazarus, 1980: 89). Ginzberg and Henry also found that employers tend to discriminate against immigrants in general and visible minorities in particular; when applying in person, blacks were told 48% of the time and Indo-Pakistanis 42%, that a job vacancy had been filled, although for whites it was still open (Ginzberg and Henry, 1984/85: 28). In addition, it was found that when applying in person, 19% of the blacks in the sample population were treated rudely and even with hostility, whereas all of the white applicants were not subjected to rude treatment but dealt with as potential employees (Henry and Ginzberg, 1985:51). Decore's study on educational attainment and income by ethnicity confirms that there is inequality against visible minority groups in Canada (Decore and Ugbor, 1991). Finally, recognizing only Canadian, United State, or English work experience and educational credentials can be interpreted as a screening device used to discriminate against newcomers from other countries.

It has been alleged that ethnic discrimination is structurally induced and reinforced by the dominant group (Wilson and Kolb, 1949:475). Minorities are "stigmatized" by distinctive color, ethnic stock, religion, or language, and regarded and treated as inferior by the dominant group (Wilson, 1949: 477). Social institutions such as the school, church, social club, and courts systematically organize and defend this stigmatizing mechanism in order to exclude minorities from competition and thus to protect the dominant group's economic, occupational, educational, political, and social superiority (Davis, 1945: 479-488; Collins, 1971). If any person violates this "stigmizatizing" and "exclusive" social order, he or she is punished physically, economically, socially, or legally, depending upon the seriousness of the infraction (Davis, 1945: 481; Seeman cited in MacKie, 1985: 234). Therefore, discrimination is not just a spontaneous reactions of individuals to other individuals, but also a socially induced feature of stratification (Wilson and Kolb, 1949: 476).

Underemployment

Even though underemployment is a general tendency in the changing Canadian economic market, immigrants experience it more than non-immigrants. Looking at the discrepancies between intended jobs at entry of those immigrated in the years of 1978 to 1982 and their actual jobs attained upon settlement in Canada in 1986, a high proportion of professional occupation-intended immigrants failed to find those jobs, and perhaps as a result, immigrants are overrepresented in the service sector. Childcare workers, domestic

servants, and food service workers were the most populous service occupations of immigrants (Belyea, 1991).

Many trained and skilled immigrants fail to acquire their intended jobs and are thereby forced to work at menial jobs in order to support their family and themselves (Canada, 1988). For example, medical doctors have been known to work as housekeepers in hospitals (Alberta/ NWT Network of Immigrants Women, cited in Canada, 1988: 32). Even though some may be fortunate enough to find employment in the area in which they trained, they still experience relatively lower job status than non-immigrants (Bolaria and Li, 1988:218). To overcome such downward occupational mobility, immigrants often seek self-employment.

Immigrants originating from non-traditional source countries by and large seem to experience more underemployment compared to non-immigrants and immigrants from traditional source countries. Discrimination against visible minorities is one of the causes for their underemployment in Canadian society.

Although for a long time in history, labor market or labor force problems have been defined and measured only by the unemployment rate, it has been stated that statistics of underemployment, in addition to statistics of unemployment, are required in order to describe adequately the quantity and quality of work provided by a society to its economically active population (Clogg, 1979:2). According to the international standard, underemployment exists when a person's employment is inadequate in relation to specified norms or alternative employment, taking account of his or her occupation skill (training and working experience) (Clogg, 1979:3 and Turvey, 1989:99). Following Hauser's conventions, Clogg classifies the forms of

underemployment as 1) not being in the labor force (or else, economic inactivity), 2) sub-unemployment (a proxy to the "discouraged worker" status), 3) unemployment, 4) part-time employment (or part-time unemployment), 5) underemployment classified by low income, 6) mismatch, 7) inadequate employment or utilization (Clogg, 1979:9-10).

Measuring the time spent in employment in order to reflect an insufficiency in the volume of employment demonstrates a "visible" dimension of underemployment, and the income derived from the productivity of work and skill utilization dimensions are "invisible" characteristics of the quality of work - invisible because they are extremely difficult to measure (Clogg, 1979:3).

Following the classification explained above, it is suspected that immigrants' underemployment may fall into the "invisible" category, or in other words, into the category of underemployment classified by a low income job and a mismatch and under-utilization of their training and working experience. One of the aims of this study is to determine if immigrants are less likely to be underemployed if they receive their education in Canada.

Changing Family Roles

Immigrants from non-traditional sources experience more challenges in changing family roles. Since women are more likely to participate in the labor force in Canada than in their source countries, they experience more freedom and independence in Canada than their source countries and prefer to assimilate to the Canadian culture. However, men are more reluctant to accept and follow aspects of Western culture since in that way their power is weakened in the family.

Another problem experienced by immigrants is the shattering of intergenerational communication. Immigrant children experience massive assimilation and acculturation via television and their peer groups (Buchinani, 1984:9). They also learn official languages more quickly and easily than their parents and thus are more likely to assimilate into mainstream culture and norms. This gap can cause conflicts between generations. Also, since parents are often too busy to care for their children because they overwork, contact with children may be limited. All these contribute to dysfunctional communication between generations and intergenerational conflict.

Mental Health Problems

All the above mentioned barriers contribute to difficulty in the satisfactory adaptation of immigrants to Canada. Occupational downward mobility undermines self-esteem and this life-stress causes frustration and alienation. Kurol discovered that position in the job hierarchy rather than income determines a person's mental health (cited in Canada, 1988: 31). Kim's research on the psychological adaptation process of Korean immigrants found that those with a lower degree of language proficiency and inability to penetrate into Canadian society, due to lack of personal skills and resources, seem to have higher levels of stress and feelings of marginality (Kim, 1986: 214).

Nonetheless, immigrants tend to internalize and not to express publicly their anger and frustration, partially because they fear making any "trouble" that might cause them to be deported from Canada (Bolaria and Li, 1988: 230). Because of their inferior status, they

are often subjected to, and easy prey for, exploitation (Bolaria and Li, 1988). Due to various reasons related to cultural and lingual differences, ethnic minority group members often segregate themselves around their religious organizations or ethnic community and restrict interaction with members of the dominant cultural group (Ramcharan, 1982). This segregated status in Canadian society would undermine possible dialogue between ethnic groups, and perpetuate existing discrimination.

Another psychological problem is anomie, especially during the transitional period as in the case of changing family roles. On the other hand, when one does not want to belong to either mainstream culture or one's ethnic minority community and religious organization, his/her marginalization would be seriously increased. Considering that those who are most likely to suffer cultural and social marginalization are from non-traditional world immigrant sources and have non-Christian religions, non-ethnic and non-religious helping agencies are needed for these minorities within a minority.

Immigrant Women as a Group with Multiple-Challenges

Women more typically emigrate to accompany or to rejoin male relatives than the reverse, and women entering Canada over the past decade were many times more likely than men to immigrate as dependent spouses (Canada, 1988: 73,74). Upon arrival in Canada, immigrant women often find themselves isolated within the family and ethnic community. When I interviewed Nena Jocic-Andrejevic, the director of the *Changing Together - A Center for Immigrant Women*, she explained the causes of immigrant women's isolation as a result of their limited

command of English, cultural gap, lack of information, and a limited social network. She also mentioned that immigrant women underutilize health care facilities and helping agencies due to reluctance or lack of information. Immigrant women do not have much courage or chance to get involved in mainstream society whether they work outside or in the home. If they work in the labor market, they are so busy doing housework in their spare time that they do not have time to take ESL courses or other special programs which facilitate integration into Canadian society such as programs offered in the above-mentioned Center. Although they do not participate in the labor market, they are still busy taking care of children, doing housechores, or sometimes they waste fruitless time while seeking jobs that exist nowhere in Canada, except perhaps in a garment factory.

Often their cultural norms prevent them from going out and participating in the new society. This explains why, in many cases, immigrant women live within the limited boundary of their family and ethnic community without much contact with other parts of Canadian society. However, the ethnic community is usually male-dominated, and it serves as a mechanism that maintains old values of their tradition, imposing male-dominating family roles on its members under the rationale of preserving traditional ethnic identity. For example, old males, or even old-generation females of the some ethnic community, may frown at a "Canadianized" woman who asks her husband to help with housechores. Ironically, however, the desired role of immigrant woman in immigrant society seems to be a combination of two conflicting roles; a "superwoman" who is "traditional" enough to do all the domestic work for the family without complaining, and at the

same time who is "Canadianized" enough to participate in the labor market and contribute money to the household.

The frustration and diminished self-esteem caused by underemployment or other life events of immigrant men and women sometimes result in family violence and break-down. Once immigrant women divorce or separate, they face a desperate situation in which they need to support themselves and their children in an unfamiliar and unfavorable labor market without much of a social support network.

Therefore, unlikely as it may be in their source country, many immigrant women are forced to participate in the labor force to support or contribute to their family's economic security in a new country. McLaughlin found that even though the actual rate of labor force participation is higher in Canadian-born women, when adjustments for age differences are made, the participation rate of immigrant women is higher (55.6%) than Canadian-born women (52.1%) (McLaughlin, 1985: 98). Women's participation is continuously increasing in the Canadian labor market - about 70% of Albertan women will participate in the labor market by 2,000 (Alberta, 1990:17). As a reflection of this general trend, as well as of their special needs as immigrants, immigrant women's labor participation will likely increase.

In the labor market, immigrant women are more likely to be underemployed than their Canadian-born counterparts or immigrant men because they do not speak English well or they possess both less practical skills and knowledge such as math and science and job experience. Thus, for the first time in their lives many of these women struggle in humble work environments. To participate in the labor market successfully, immigrant women need to improve their

official languages ability and upgrade their qualification through re-education. Immigrant men in the family and ethic community should be aware that sticking to the old values of their male-dominating tradition is unfair because it justifies and deepens the exploitation of immigrant women in Canadian society.

ROLE OF EDUCATION FOR IMMIGRANT'S SUCCESSFUL ADAPTATION

Given the above information, I would like to look at theoretical explanations of immigrant educational policy, according to functional and conflict perspectives. Also, I will address the benefits of receiving Canadian higher education in immigrants' successful adaptation.

Theoretical Perspectives

While the role of immigrants in the Canadian economic structure has been functional, their satisfactory adaptation was blocked by conflicting interests between non-immigrants group and themselves. At its inception, Canada required cheap labor to build the transcontinental railroad, and so permitted Chinese and Japanese to immigrate. But the dominant group exploited and discriminated against them for a long time (Bolaria and Li, 1988). Then, Canada needed to import immigrants with high levels of training and skills, because it could not provide sufficient labor-power for high technology areas due to its educational lag in keeping up with the rapidly changing post-industrialized society (Porter, 1979). Since highly trained labour-power is in short supply on the world market and every

developed country competes to retain its labor-power, Canada seeks its immigrants from non-traditional sources (Bolaria and Li, 1988: 207).

Bolaria and Li describes the massive influx of professional and skilled labor such as scientists, doctors, and graduate nurses in late 1960's and early 1970's as a "brain drain" (Bolaria and Li, 1988: 212). They argue that the recent decrease in importing this type of skilled labor is partly due to pressure from domestic professional groups. Despite Canada's preference for people with high educational attainment and skills, and thus recruitment of those people as immigrants, the utilization of their labor seems to be failing as described in the underemployment section of this chapter.

To explain this, conflict theorists would say that non-immigrants groups would act against immigrants group when their interests are in conflict. Since recognizing the cultural capital (knowledge and skills) of immigrant groups may cause conflict with the interests of the dominant group in a competitive labor market, the non-immigrant group tend to restrict such recognition.

The non-immigrant dominant group members protect their rights in the economic structure in various ways. As Collins interpreted the Weberian notion of status group in social stratification, the dominant group uses its "exclusiveness", characteristics of status culture, to maintain the currently existing between-group hierarchy. However, in modern democratic society, open exclusion of minority groups is not an option. Instead, the dominant group covertly prevents competition from minority groups by the use of cultural, religious, lingual, or life style distinctiveness, or even distinctiveness of manners (Collins, 1971).

Education serves as a mechanism of occupational placement as employers use education as a means to select certain cultural attributes. Employers use education as a screening device for employees with desirable characteristics and demeanor, which are the same as the dominant culture or which show respect for the dominant culture (Collins, 1971). Devaluation of educational credentials and restriction of access to higher education for immigrants are therefore accounted for in the context of a mechanism that protects and maintains "exclusiveness" for the benefit of the dominant group.

Bowles and Gintis share this view that the educational system is one of the several reproduction mechanisms through which dominant elites seek to achieve this objective (Bowles, 1976). They also point out that open admissions threatens the legitimation mechanism by rendering school a less important factor in the opportunity to obtain higher education (Bowles, 1976). Nevertheless, better recognition of foreign training and academic credentials and more open access to educational system in Canada for immigrant groups may help reduce the inequality against minority groups in Canadian society.

Benefits of Receiving Canadian Education

Tandon found the effect of Canadian schooling and Canadian experiences on immigrant income to be more significant than schooling and experience acquired abroad (Tandon as cited in deSilva, 1992:19). Immigrants can rid themselves of the tendency towards underemployment and poor income, and they can be more effectively socialized as Canadian citizens by receiving Canadian post-secondary education.

Implementing better access to higher education in Canada for immigrants may reduce inequality in various ways.

The first argument given for increasing immigrant access to education is that immigrants could upgrade their qualifications and so would have better chances of finding their intended occupation through schooling in Canada. At the same time, by utilizing the potential capacity of immigrants, Canadian society could upgrade the competitive quality of its labor-power and ultimately increase its value on the world labor market.

Against this position, however, Collins would argue a negative view of "overeducation" that devalues educational attainment and its role in economic productivity. He claims that economic evidence indicates no clear contributions of education to economic development, beyond the provisions of mass literacy (Collins, 1971). Also, he goes on to state that education is often irrelevant to on-the-job productivity and is sometimes counterproductive.

However, to provide or to promote only functional ESL (to eliminate the social problems caused by functional dumb/deaf-like immigrants in terms of official languages) and vocational education (to fill up the positions that the non-immigrant group avoids) for immigrants is to ignore the strong desire of immigrants to upgrade their qualifications through higher education, and to restrict them to a being a functional cog in an existing hierarchy. Also, although education may be irrelevant to on-the-job productivity, employers hire "educated" people. Therefore, given the fact that foreign "educated" is not recognized or valued in Canada, the only way for the immigrant to escape this cycle is to possess "Canadian education".

Second, Canadian schooling for immigrants not only provides better credentials for vocational purpose but also provides effective socialization to help them become citizens of a new society. School may be the most intensive and effective socialization agency in society next to the family. Immigrants from non-traditional source countries bring with them a set of social values and cultural traits quite different from those of the main population and they need to make strong efforts to adjust themselves successfully to a new social milieu and to be accepted as "normal" Canadians: receiving schooling in Canada can help them go through this process successfully.

Manley-Casimir argues that many immigrants may be ignorant about the legal system and lack the knowledge of the institutions that control the society that is a prerequisite to intelligent democratic action; thus, the development of legal literacy is essential for effective citizenship for Canadian citizens (Manley-Casimir et al., 1989:84). As he pointed out, it is extremely important that immigrants as new Canadian citizens have access to knowledge about how Canadian society works to enable them to participate fully in a democratic society. At least they should understand what their rights and duties are in Canadian society; and immigrants educated in Canadian educational institutions would have a better understanding of these than immigrants who have not had such a chance.

Too often, immigrants' interactions in Canadian society are so narrowly limited within a boundary of a small ethnic group, the work place or the home, that they can not gain socialization sufficient to realize their goal of being active Canadian citizens who fully participate in Canadian society rather than merely passive residents.

Schooling in Canada can really encourage them to learn and adopt the norms and values, laws and customs, common sense and culture of main stream Canadian society in a humane but critical environment. It can thus help them to live harmoniously in a new society.

AIM AND SIGNIFICANCE OF THE STUDY

In reviewing the literature relevant to this study, I found that there have been few studies done on the role of Canadian education in the immigrant's adaptation to a new country, especially on its role in improving their economic adaptation, except for research on ESL. The problems of barriers to the immigrants' adaptation entail fundamental structural aspects such as discrimination and restricted credentials; therefore, the focus on linguistic development as the only remedy for this problem is inappropriate and insufficient. Also, although there is some literature that points out the decreased value of credentials of immigrants (Ujimoto, 1984 and 1986), those studies provide fragmentary information on only some ethnic groups, and thus do not represent a broad range of the immigrant population.

deSilva's study was one of the few empirical studies done on the subject of the thesis. Using the data from the Public Use Sample Tape for the 1986 Census, he compares earning of immigrants and native-born Canadians according to their educational attainments and experiences obtained in Canada or outside Canada. In this analysis, he concludes that there is no significant discrimination against immigrants in general and against visible minority immigrants, partially because people who immigrated from Third World regions in Canada in their early ages and obtained their education and experience in Canada

performed economically as well as native-born Canadians (deSilva, 1992). However, regarding their fair economic adaptations as proof of absence of discrimination against them in Canadian society is questionable. As stated earlier in this chapter, the problem of immigrant's economic adaptation is rather a matter of underemployment than poor income, thus judging successfulness of their adaptations only on the ground of their earnings is not enough to capture the "invisible" dimension of the problem. Also, if having Canadian education and experience contributes to the elimination of the wage gaps between immigrants and non-immigrants groups, explanation of how this phenomenon happens is not provided in his analysis.

Therefore, in this study I try to look at the effect of having Canadian education on not only income but also occupational adjustment of immigrants. For this purpose, I test the hypothesis that immigrants with Canadian bachelor's degrees are more likely to have higher income and occupational status than immigrants with non-Canadian bachelor's degrees. Also, I aim at awakening interest on the role of education in the immigrant's successful adaptation by providing a description of how Canadian education helps immigrants be more successfully adapted into Canadian society.

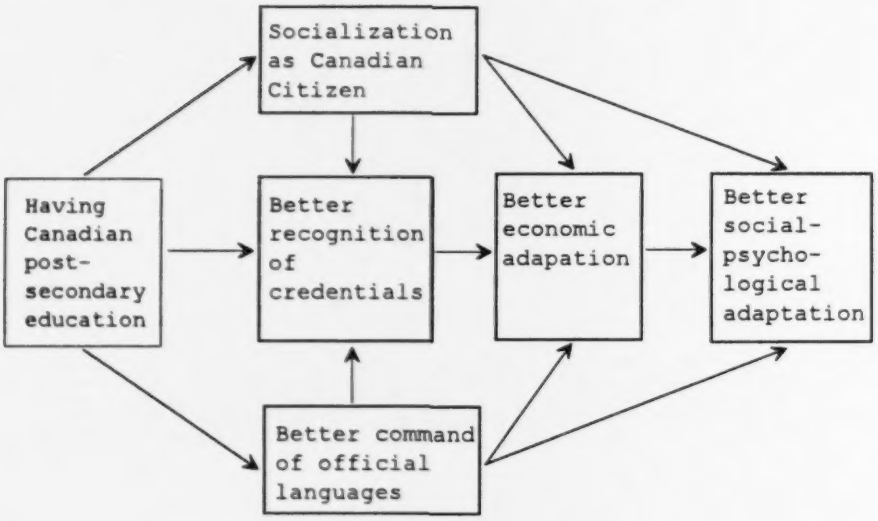
In so far as immigrants play a positive role in building and shaping Canadian society, they deserve enough notice from main stream society to find a way to enable them to join into their new society with self-esteem and dignity as a Canadian citizen. Canadian education may enable them to begin to realize this goal as it opens its doors to immigrants. In this context, the findings of this study can contribute to redressing inequality in Canadian society. First,

it will contribute to a better understanding of the existing reality of immigrants in the Canadian economic structure. Also, as a way to redress inequality, it can promote a more flexible Canadian educational policy in order to reflect and accommodate the needs of immigrants who want to upgrade their qualifications or to adapt well in a new country through education. Finally, it can be used as briefing material for people who want to immigrate to Canada, informing them in advance of the common tendency of immigrants' occupational adaptation so that they do not bring unrealistically high expectations with them into Canada.

CHAPTER III. RESEARCH DESIGN

HYPOTHESES OF CONCERN

From the argument that I provided earlier in the literature review chapter, a causal diagram can be drawn to summarize the relationship between having Canadian post-secondary education and immigrants' adaptation into Canadian society.



The purpose of this study is to examine the impact of having Canadian education on immigrants' successful adaptation. More specifically, this study focuses on the third outcome in the middle line of the above diagram. That is, it tries to verify the thesis that receiving post-secondary education in Canada contributes to the successful economic adaptation of immigrants, especially immigrants of

ethnic minority origins. The following hypotheses are stated in order to set a direction to the study.

Research Hypotheses:

1. Receiving post-secondary education in Canada positively affects immigrants' income and occupational status in Canada.

2. Non-European immigrants are more benefited by such an effect of receiving Canadian post-secondary education in improving income and occupational status than European immigrants are.

Null Hypotheses:

1. Receiving post-secondary education in Canada does not positively affect immigrants' income and occupational status in Canada.

2. The extent to which non-European immigrants are benefited by having Canadian post-secondary education is not greater than that of European immigrants.

OPERATIONALIZATION

Using 1986 Census data, this study compares differentials in income and occupational status of immigrants who received their bachelor's degree in Canada and those who received such degrees in other countries. Also, it examines the impact of ethnicity and gender on immigrants' income variation. To reduce the possibility of influence by anything other than the country of the bachelor degree conferred, ethnicity, and gender, variables such as age, weeks of work, hours of work, and year of immigration are controlled. The unit of analysis of this study is immigrants with bachelor's degrees.

Problems in Sampling

The differentials in income and occupational status of immigrants according to the country where their bachelor degree was conferred can be best measured only when data on the demographic characteristics of immigrants with Canadian bachelor's degrees are available. Although it may be possible to use the Census data or immigration files to look at the socioeconomic status of immigrants with different levels of educational achievements at the time of their entry into Canada, unfortunately there does not exist any published data on changes in their educational achievement after their arrival in Canada. It follows that there are no data which show such educational achievement in combination with their socioeconomic conditions, the data of interest to this study.

It may be possible to track data on the records of immigrant students who gained their degree from each post-secondary school in Canada for a study such as this, but to do so massive follow-up studies on their job adjustment and income levels would be necessary. Also in that case, controlling for factors such as age, gender, race or ethnic origin, labor force activity, and income may be difficult, thus allowing the possibility of errors of sample misrepresentation, which would undermine the validity of the study findings. Clearly, this would also involve ethical issues as well as time, money and interorganizational cooperation that I could not attain as a Master's student.

Therefore, as an alternative using the 1986 Census data, immigrants were identified who received their bachelor's degrees

either in Canada or not in Canada. However, since no question was asked on the year or the place of degree conferred in the Census questionnaire, it is not possible to simply disaggregate immigrants with Canadian bachelor's degrees from the total immigrants with bachelor's degrees in the 1986 Census. To solve this problem, this study creates a variable WHEREDUC in which the place of bachelor degree received by immigrants are classified according to the dichotomy: 'Canada' or 'Not likely Canada'. The discussion of the variable WHEREDUC is given in the next section along with the general sampling procedure done for the analysis.

Sampling Procedure

First, people who met the following criteria were drawn from the 1986 Census Public Use Sample Tape (a 2% probability sample of the total Canadian population):

1) born in foreign countries,

2) indicated bachelor's degree as their highest degree, certificate or diploma obtained,

3) fell between 20 and 64 years of age, and

4) marked as having a single ethnic origin.

Although it may be possible to include immigrants with a greater variety of levels of educational attainments in the study population, it would cause further methodological problem because the validity of WHEREDUC would decrease beyond the bachelor's degree level due to the unpredictable age pattern of people seeking degrees higher than the bachelor's degree. On the other hand, immigrants who responded to 'other single origins' and 'multiple ethnic origins' in the Census

data were not included in this analysis; about 23% of immigrants who were qualified for the above three categories were eliminated by this.

Next, the variable WHEREDUC (the place of bachelor degree conferred by immigrant) was processed from the cases selected according to the above criteria. The generation of the variable WHEREDUC was based on the following assumption. If people who have immigrated to Canada before age 20 responded that they possessed bachelor's degree, they probably received those degrees in Canada; these immigrants belong to the first category of WHEREDUC. If people who immigrated in Canada at or after age 20 and possess bachelor's degrees these degrees were more likely received in their home countries; the second category of WHEREDUC represents these immigrants.

Further adjustment in the sample was made after examining whether the age at immigration had an impact on the income of immigrants. If any significant relationship was found between these two variables, it would undermine understanding the true influence of WHEREDUC in the income differentials among immigrants, making it impossible to satisfy the main concern of this study. When the relationship between the two variables, age at immigration and income, was tested by regression, no linear relationship was found; the F-value was .89789 at the observed significance level .3434. Also, when income was plotted against the age at immigration, it was rather evenly distributed until it reached age 45, from which point income decreased rapidly. From this observation, people who have immigrated to Canada before age 45 only were included in the study in order to ensure that income would not be influenced by anything other than the main factors

(WHEREDUC, ethnicity, and gender). Finally, a total of 3748 individuals were left for the analysis.

Limitations of WHEREDUC

The possible traps in the underlying assumption on WHEREDUC are as follows. First, it is not an absolutely exact representation of the people who were educated in Canada or not in Canada. There is no guarantee that people who immigrated after their twenties did not obtained their bachelor's degrees in Canada. Also, the procedure might include people who immigrated before their twenties but studied abroad and brought their foreign degrees back to Canada in the first category of WHEREDUC rather than the second. If immigrants who already had a bachelor degree in their home countries obtained a second or further bachelor degree in Canada, this group of people will be classified into the second category in WHEREDUC; this misrepresentation is unavoidable since there is no indication of the number of degrees that the person has in the Census data from which WHEREDUC is derived. Therefore, the figures in the WHEREDUC categories should be understood with caution. Nevertheless, WHEREDUC is a meaningful device which allows a comparative analysis of the impact of receiving Canadian education on immigrants' economic adaptation, which is the primary purpose of the study. The limited validity of WHEREDUC will cost any exact estimates of the amount or scope of differentials in income and occupational status, however, this study may still be significant as an attempt to grasp a broad picture of such differentials among immigrants with Canadian post-secondary education and those with foreign education.

CHAPTER IV. DATA ANALYSIS

The independent variables in this study are WHEREDUC (the place of bachelor degree conferred by immigrants), ethnicity, and gender. The dependent variables are income and occupational status. Intervening variables such as age, weeks of work, hours of work, and year of immigration are controlled. Weeks and hours of work are controlled in order to reduce the impact of working hours on income; some immigrants would have higher income only because they work longer hours than others. Except WHEREDUC, definitions of the variables used in this study follow those indicated in 1986 Census. Followings are brief introductions of the definitions used in the 1986 Census (Canada, 1990);

1) Ethnicity: Ethnic or cultural group to which the immigrant or the immigrants' ancestors belong. (As mentioned earlier in Chapter III, this study includes only respondents who gave single ethnic origins).

2) Income: The total money income received by immigrants during the calendar year 1985. It includes wages and salaries, self-employment income, pension, government transfer payments, and other money income.

3) Occupation: The kind of work the person was doing during the reference week, as determined by their reporting of their kind of work and the description of the most important duties.

4) Weeks of work: The number of weeks in 1985 during which immigrants worked.

5) Hours of work: The actual number of hours that immigrants worked in the week prior to census enumeration.

The main statistical summaries provided in this chapter are produced by ANOVA (Analysis of variance) and CROSSTABS (Crosstabulations) in the SPSS program.

ETHNICITY, GENDER, AND WHEREDUC OF IMMIGRANTS

The distribution of the selected 3748 individuals from the 1986 Census by their ethnicity, gender, and WHEREDUC is summarized in Table 1 on the next page. As discussed in the previous chapter, the figures appearing in WHEREDUC categories are not precise estimates of immigrants who received, or did not receive, their bachelor's degrees in Canada. Rather, these figures should be understood as a comparative device for measuring such characteristics among immigrants. For example, although it is not right to conclude that 91% (163 out of 180 in Table 1) of all Italian immigrants have obtained their bachelor's degrees in Canada, it is reasonable to infer that Italian immigrants were more likely to obtain their bachelor's degrees in Canada rather than in their home countries (163 vs. 17).

Generally, the proportion of people who possess their bachelor's degrees conferred in Canada was higher in immigrants of European ethnic origin groups than in non-European ethnic origin groups. The number of people with Canadian bachelor degrees was greater than that of those with non-Canadian bachelor degrees among immigrants of Italian, Portuguese, Ukrainian, Dutch, Polish, and German ethnic origin groups. Among the immigrants of other European ethnic origin groups, people who possessed Canadian bachelor's degrees were only slightly less in number than those who possessed non-Canadian

bachelor's degrees. In the case of immigrants of non-European ethnic origins, there were at least three times as many people whose bachelor's degrees were conferred outside Canada as those whose degrees were conferred in Canada, except among the Chinese.

This finding does not necessarily imply that immigrants of European ethnic origins are more likely to attend university than those of non-European ethnic origins in Canada; it may reflect the fact that European immigrants have arrived in Canada a relatively long time ago, thus the ages of their children in this particular year's Census were older than those of non-European's children, and this contributed to the higher rate of possessing Canadian bachelor's degrees among them.

The number of male immigrants was slightly larger than the number of female immigrants in both WHEREDUC categories and in most of the ethnic groups; 59% of immigrants with Canadian bachelor's degrees and 56% of immigrants with non-Canadian bachelor's degrees were male. It was noticeable that only among the French immigrants did females slightly outnumber males in both WHEREDUC categories. Also, the number of Filipino females who possess their bachelor's degrees conferred not likely in Canada was interestingly high.

MEAN INCOME OF IMMIGRANTS BY ETHNICITY, WHEREDUC, AND GENDER

The result of testing the hypotheses of concern using ANOVA is summarized in Table 2 in which deviance of group means above or below the grand mean income in dollars are reported for nineteen ethnic groups, two WHEREDUC groups, and both genders.

The observed mean incomes of immigrants of European ethnic origins, except French and Portuguese, all fall above the grand mean income of $28,129. On the contrary, the observed mean income of immigrants of non-European ethnic origins all fall below the overall mean. This pattern roughly remained even after the observed incomes were adjusted for WHEREDUC, gender, age, weeks of work, and hours of work.

When income was adjusted, immigrants of Jewish ethnic origin earned the highest income, about $5,400 above the mean. Ranked according to their distance from the overall mean, immigrants of British, German, Scandinavian, Hungarian, Ukrainian, Greek, and Italian ethnic origins earned above the mean income. While few of the European ethnic origin groups appeared among the below mean income groups, all means of non-European ethnic origin groups were found in the lower income groups, especially immigrants of Filipino and East/South East Asian origins who earned, on average, more than $4,000 below the overall mean income.

The influence of WHEREDUC on income are also reported in Table 2. When income was adjusted for ethnicity, gender, age, weeks of work, and hours of work, immigrants who received their bachelor's degrees in Canada earned about $4,000 more than immigrants who possessed bachelor's degrees which were not likely conferred in Canada.

Finally, as reported in Table 2, it was observed that gender had a significant effect on income. Female immigrants, earning $5,058 below the grand mean on average, earned approximately $8,500 less than their male counterparts when income was adjusted for ethnicity, WHEREDUC, age, weeks of work, and hours of work.

Of all factors considered in the analysis, gender was found to have the greatest impact on income of immigrants, followed by WHEREDUC, and ethnicity; F-value were 181.560 for gender, 34.261 for WHEREDUC, and 4.714 for ethnicity ($P < .0005$).

The ANOVA statistics also imply that the interaction between ethnicity and gender of immigrants in this analysis significantly affects their income; F-value was 3.859 ($P < .0005$).

This interaction effect might lead to exaggerated findings on the influence of the main factors on income variation, and therefore an analysis in which immigrants are disaggregated by ethnicity and gender is called for. Table 3 and Table 4 summarize the results of these separate analyses of gender and ethnicity.

MEAN INCOME OF IMMIGRANTS BY GENDER

Table 3 summarizes the outcome of the analysis of the impact of WHEREDUC and ethnicity on income when the sample population was disaggreated by gender. Although the segregation by gender eliminated the problem of the interaction effect between ethnicity and gender in income variation, it also created a problem of small cell frequencies of ethnic groups. Statistics Canada suggests that a subgroup of less than 100 individuals in this 2% sample Census data should be treated with caution when considering their representativeness of the characteristics of the whole population. Therefore, the nineteen ethnic origin groups which appeared in Table 2 had to be collapsed into smaller categories to increase cell frequencies in Table 3.

As seen in Table 3-1, of female immigrants the Black group was reported to earn the highest income, about $3,000 above the all group

mean income of $20,023 when income was adjusted for WHEREDUC, age, weeks of work, and hours of work. Next, female immigrants of Southern European ethnic origins (Italian, Greek, and Portuguese) were also reported to earn about $3,000 above the mean income. Then female immigrants of Jewish, British, and Chinese ethnic origins appeared in the above the mean income status. Those of West Asian & Arab origins earned about $5,000 less than the mean income, and thus became the lowest income group, followed by a low adjusted income for German female immigrants, the East/South East Asian, French, Dutch, Filipino and South Asian women.

While the distribution of income of female immigrants by ethnic origin showed some deviations from the pattern observed in Table 2, that of male immigrants was very similar to the overall pattern. Among male immigrants, those of Jewish origin earned the highest adjusted mean income of about $7,300 over the overall group mean income of $33,684. Mean incomes of most of European ethnic origin groups were reported as higher than the grand mean income. On the contrary, those of non-European ethnic origins were all lower than the overall mean income, especially those of Filipino origins who earned, on average, approximately $8,100 less than the grand mean.

The high income status of the Black female immigrants was an interesting contrast with black male immigrants whose income was one of the lowest. Also, the low adjusted income of German female immigrants was rather surprising when compared to that of their male counterparts, which was $2,000 above the average.

The hypothesis that immigrants who had their bachelor's degrees conferred in Canada earn more income than those immigrants whose

bachelor's degrees were not likely conferred in Canada was again supported in the analyses. When men's income was adjusted, the former group earned about $4,500 more than the later group (the difference between $2,569 and 9,904 in Table 3-2). When women's income was adjusted, those likely educated in Canada earned almost $4,300 more than those not likely educated in Canada (the difference between $2,477 and -$1,714 in Table 3-1).

MEAN INCOME OF IMMIGRANTS BY WHEREDUC

In addition to the disaggregation by gender as reported above, the sample population was disaggregated by WHEREDUC in an attempt to restrict the interaction effect between ethnicity and WHEREDUC as reported in Table 4. It has again been necessary to collapse some ethnic categories to eliminate small cell frequencies; the new category "N/W European" combines French, Dutch, German, and Scandinavian ethnic groups. Also, the new category "Eastern European" includes Hungarian, Polish, Ukrainian, and Croatian/Serbian ethnic groups, and the new category "Southern European" includes Greek, Italian, and Portuguese ethnic groups in Table 4.

The effect of ethnicity on income was statistically significant in the case of immigrants who obtained their bachelor's degrees in places other than Canada; F-value was 8.631 ($P < .0005$). Also, in this category of WHEREDUC, there was a clear pattern that immigrants of European ethnic origins earned more income than those of non-European ones. While immigrants of British and Jewish origins earned the highest income of about $5,900 and $4,300 respectively above the group mean income of $28,073, those of other European ethnic origins also

earned more than the mean income, when income was adjusted for gender, age, weeks of work, and hours of work. However, immigrants of non-European ethnic origins earned less than the mean income, especially those of East/South East Asian origin who earned more than $6,000 below the mean income.

By contrast, when immigrants obtained their bachelor's degrees in Canada, those of Jewish origin earned the highest income of about $5,100 above the adjusted group mean income $28,206. Although those immigrants with darker skins, Filipino, Black, and West Asia & Arab ethnic origins, earned less than the overall mean income, this finding was too weak to conclude it as a general tendency of the whole immigrant population; note the small cell frequencies of the above groups in Table 4-2. Moreover, the ANOVA statistics reported that the effect of ethnicity on income when immigrants were all educated in Canada was statistically insignificant; F-value was 1.838 ($P < .05$).

The findings from the Table 4-1 and Table 4-2 seem to support the hypothesis of the study; the possession of Canadian bachelor's degree helps immigrants of non-European ethnic origins earn more income. When they all received their bachelor's degrees outside of Canada, generally immigrants of European ethnic origins earned more than the mean income and those of non-European ethnic origins earned less than the mean income. However, this pattern faded when they all received their bachelor's degrees in Canada; not only the effect of ethnicity was no longer statistically significant, but also immigrants of some ethnic minority group earned over the mean income. Especially, immigrants of East/South East Asian origin who fell into the lowest income group when they were educated outside Canada, earned well above

the mean income when they were educated in Canada; their incomes were $6,010 below the group mean in the first category of WHEREDUC, and $2,653 above the group mean in the second category of WHEREDUC. It was also found, however, that having a Canadian bachelor's degree did not help raise the income status for immigrants of West Asia & Arab, Filipino, and black ethnic origins.

The gender difference in income was confirmed again in the analysis summarized in Table 4-1 and Table 4-2; males earned between $7,500 and $9,500 more than females with the same educational attainments in the two categories of WHEREDUC.

MEAN INCOME OF IMMIGRANTS BY YEAR OF IMMIGRATION

Next, it has been attempted to reflect on the impact of the duration of staying in Canada on immigrants' income. Despite the fact this variable might be a very important factor in determining immigrants' income, there was no direct information about this in the Census data. The possibility of deriving the variable from the current age of immigrants and the year of their immigration into Canada has been examined. Unfortunately, however, the year of immigration was not coded into a single value but collapsed into group values in the Census data; this made it impossible to match it with the current age of immigrants. The possibility of solving this problem by disaggregating the sample population by the year of immigration or the age at immigration has been considered; however, this caused cell frequencies too small to conduct any statistical analysis.

As an alternative, the observed income of the sample population was compared for three periods of immigration: before 1965 (1299 Cases), between 1966 and 1975 (1512 Cases), and between 1976 and 1986 (936 Cases). Table 5 shows the difference in observed mean income of ethnic groups by these three periods of immigration. It has again been necessary to collapse some categories because of small cell sizes, and as a result, French, Scandinavian, Eastern European, and Greek/Portuguese have been combined as "other European" and all others except the Chinese have been combined as "other non-European" in this table. Also, since the age of immigrants was considered to be a crucial element in determining their income, the differences in mean ages of each ethnic groups were included in the table.

Among immigrants who came before 1965, those of Jewish origins earned the highest mean income, about $4,800 above the group mean income of $33,838. Immigrant groups of British and German origins also earned more than the overall mean income. Italian immigrants earned, on average, about $300 over the mean income. However, immigrants of non-European ethnic origins earned more than $3,000 below the mean income. The age column cannot be used to statistically adjust these figures, but we can, for example, infer that the mean income of the Italian group should be considered high, as they are, on average, 6.37 years younger than the sample population as a whole.

Looking at the immigrants who came between 1966 and 1975, immigrants of European ethnic origins seemed to earn more than those of non-European ethnic origins, especially when considering the younger ages of the former group. Immigrants groups of most non-European ethnic origins earned less than the overall group mean

income, despite the fact their ages were older than the overall group mean age. The high observed income among immigrants of West Asia & Arab origins was rather surprising because it contrasted to the lowest income status of the same ethnic groups among those who immigrated between 1976 and 1986.

Among the immigrants who came between 1976 and 1986, those of British and Jewish origins were once again reported to earn higher income than the group mean of $17,419. Considering their younger ages, immigrants of other European ethnic origins seemed to earn higher income than those of non-European origins. Immigrants of Filipino and East/South East Asian origins were the oldest ethnic groups in this category and thus their lower incomes should be perceived as even lower than those shown in Table 5C.

Although immigrants of European ethnic origins seemed to earn higher incomes than those of non-European ethnic origins regardless of the timing of their immigration, it was not certain in this analysis to what extent such ethnic or racial differences influenced their income status. Firstly, it was hard to compare the differences in income between the ethnic groups across the three periods of immigration because ethnic breakdowns were unevenly done as a result of the uneven distributions of the ethnic groups within them. Second, due to small cell frequencies, adjustments by WHEREDUC, gender, labor force activities, and so on were not possible. The indication of the mean age next to the mean income column was to help understand the possible implication of the current age of immigrants in their income status. However, of course, this information was still too meager to generate reliable data for comparison of income by period of

immigration or by duration of staying in Canada, thus it did not much help increase the validity of the findings of the analysis.

A comparison of income of immigrants by WHEREDUC and by the three periods of immigration was considered. However, due to the underlying assumptions on WHEREDUC, the age distribution of immigrants within each WHEREDUC categories by each periods of immigration was so varied that it was meaningless to compare their incomes; for example, the mean age of immigrants with Canadian bachelor's degrees was 37 whereas that of immigrants with non-Canadian bachelor's degrees was 53 among the people who immigrated before 1965. Furthermore, the sample sizes were not even within each WHEREDUC categories by each periods of immigration, to make comparison possible; for example, the number of immigrants with non-Canadian bachelor's degrees was 842, but the number of immigrants with Canadian bachelor's degrees was only 94 in the case of people who immigrated between 1976 and 1986.

OCCUPATIONS OF IMMIGRANTS

In addition to income, occupational status of immigrants are examined in order to explore the relationship between WHEREDUC and economic adaptation tendency of immigrants in Canada. Due to limited information in the Census data, the indicator used for occupational status was occupational category in this study. A caution should be followed in understanding the data since the later does not always match the former; for example, a nursing assistance and a medical doctor will be classified in 'medical/health' category although their occupational prestige is deemed different. Table 6 reports occupational distributions of nineteen ethnic groups. While only 8%

of Filipino immigrants were reported to work in managerial/ administrative occupations, more than 20% of immigrants of the most of European ethnic origin, West Asian & Arab origin, and South Asian origin groups were represented in this category.

More than 25% of immigrants of Chinese, Croatian/Serbian, and Hungarian origins were found working in natural science occupations, while less than 10% of those of French and Black groups were working in the same field.

About 25% of immigrants of French origin worked in art occupations, and so did more than 10% of immigrants of Polish, Ukrainian, Croatian/Serbian, Jewish, and Black groups.

There was a strong dominance of immigrants of European ethnic origins in teaching positions; more than 19% of the immigrants of British, French, Dutch, German, Ukrainian, Greek, and Italian origins were employed in this field, whereas less than 5% of the immigrants of most non-European ethnic origins were employed in the same field.

There was a higher proportion of immigrants of Asian ethnic origins in medical occupations; 26% of Filipino immigrants as well as more than 9% of immigrants of Chinese, East/South East Asian, and black origins worked in this sector.

Clerical occupations were mostly found among immigrants of non-European ethnic origins or those of Southern European origins, and least found among immigrants of North Western European ethnic origins.

A largest proportion of immigrants of East/South East Asian ethnic origins (24%) worked in sales & services occupations, and this was the highest representation among all ethnic groups in this field. The proportions of immigrants of Jewish (20.1%) and West Asian & Arab

origins (18.5%) who working in this sector were also higher than the average.

Immigrants of South Asian (14.4%), Black (10.5%), East/South East Asian, and Filipino (9%) origin were appeared in the first top four places in primary occupations.

Occupational status of immigrants by their membership in visible minority groups is reported in Table 7. Immigrants who were members of visible minority groups were highly represented in natural sciences, medicine/health, clerical, sales & services, and primary occupations. On the contrary, immigrants who were not members of visible minority were highly represented in managerial/administrative, art, and teaching occupations. Further comparisons of occupational distribution of immigrants within each of the visible minority group categories are provided in Table 8 and Table 9.

Occupational status of immigrants by WHEREDUC and visible minority membership is summarized in Table 8. When educated outside Canada, members of visible minorities were highly represented in clerical, medicine/health, sales & services, and primary (including processing, construction, and transport etc.) occupations; whereas those who were not visible minorities were highly represented in managerial administrative, teaching, natural sciences (including engineering and mathematics), and social sciences (including artistic, literary, social science, and recreational) occupations. Although some small proportional differences exist, this pattern was generally similar in both WHEREDUC categories, with the exception of natural sciences occupations.

When they were educated in Canada, the occupational pattern within the members of visible minorities changed to a large extent. The largest proportion (27%) of visible minority immigrants who were educated in Canada were reported as working in natural science occupations, and this was about 100% greater than the proportion of those who worked in the same field when they were educated outside Canada (14.7%). Also, the proportions of visible minorities working in managerial/administrative, art, and teaching fields were slightly increased, and those working in medicine/health, clerical, sales & services, and primary sectors were markedly decreased when they were educated in Canada.

In the case of immigrants who were not members of visible minorities, the occupational distribution was more similar in both the WHEREDUC categories. When they obtained their bachelor's degrees in Canada, a very slight increase in the proportion of those working in art, teaching, medicine/health, and clerical occupations were observed, along with a slight decrease in managerial/administrative and natural sciences occupations.

In Table 9, gender is added to the analysis and the occupational distribution of immigrants by their memberships in WHEREDUC, gender, and visible-minority group are reported. When the occupational distributions of the immigrants, who were divided into the four groups by their gender and visible minority membership within each of the two WHEREUC categories, were compared, the following characteristics were observed. Female members of the visible minority group were highly represented in medicine/health and clerical jobs in both WHEREUC categories. Female immigrants who were not visible minorities were

highly represented in art and teaching positions in both WHEREUDC categories. Male member of visible minorities were very highly represented in natural science occupations when they received their bachelor's degrees in Canada, while they were highly represented in sales & services and primary sectors when they received such degrees outside Canada. Male immigrants who were not visible minorities were highly represented in the sales & services and primary occupations as well as in the managerial/ administrative one when they received their bachelor degree education in Canada, and this seems to be relatively downward mobility for them because they were highly represented in managerial/administrative and natural science occupations when they were educated outside Canada.

On the other hand, when the four groups were compared across the WHEREDUC categories, immigrants who were educated in Canada showed higher representation in professional occupations than those who were educated outside Canada in three of the four groups. The proportion of people working in professional occupations (managerial/ administrative, natural sciences etc., social science etc., teaching, and medicine/health) changed from 48.8% to 62.2% in the female visible minority group, 53.8% to 69.8% in male visible minority group, 65.9% to 69.4% in female non-visible minority group, and 74.7% to 70.4% in male non-visible minority group when they were educated in Canada. These findings all support the hypotheses of the study that immigrants of non-European ethnic origins benefited from having their post-secondary education in Canada.

A final analysis was conducted to see the possible implication of the field of study of immigrants on their occupation and income. More

specifically, it was examined whether the higher income and higher occupational status among immigrants with Canadian bachelor's degrees is related to their field of study. When the income of immigrants was compared by WHEREDUC, membership in visible minority groups, and field of study (divided into two categories: 1) arts, social sciences, education, business, and 2) natural & applied sciences, medicine, and agricultures), it was found that those who were educated in natual & applied sciences and related fields earned higher income than those who were educated in arts and related fields in all groups but one. This one group was non-members of visible minority groups with foreign degrees. Nevertheless, it was also found that members of non-visible minority groups who studied in arts and related fields earned higher incomes than members of visible minority groups who studied in natural & applied science fields, regardless of the place of their education. Although the significance of this finding is diminished by the fact that the income is not adjusted by factors such as age or working hours, it suggests that the improved economic status of immigrants with Canadian degrees is not necessarily related only to their field of study.

CHAPTER V. SUMMARIES AND CONCLUSIONS

SUMMARIES OF THE FINDINGS

The hypothesis of the study that immigrants, especially those of non-European ethnic origin groups, who possess Canadian bachelor's degrees are more likely to have higher income and occupational status than those who have the same degrees conferred in other countries has been supported in the analyses described in Chapter IV. Following are brief summaries of the findings from the analyses:

- In Table 1, the proportion of people who possess their bachelor's degrees conferred in Canada was higher in immigrants of European ethnic origin groups than in those of non-European ethnic origin groups. This does not necessarily imply that immigrants of European ethnic origins are more likely to attend university than those of non-European ethnic origins in Canada; rather this may be a reflection of the different timing of immigration for them.
- Ethnicity was found to have an impact on immigrants' income. While only a few of European ethnic origin groups earned less than the grand mean income, all of non-European ethnic origin groups earned less than the grand mean income as seen in Table 2. This pattern was also found in the analyses reported in Table 3-2, Table 4, and Table 5. Especially, immigrants of Filipino and East/South East Asian origins earned much less than the grand mean income.
- Gender had a significant effect on income; female immigrants earned more than $7,000 less than their male counterparts as reported in

the Table 2, Table 4-1, and Table 4-2. It should be noticed that the overall statistics on immigrants' adaptation pattern (income and occupation) do largely reflect the characteristics of male members of the ethnic groups and the adaptation pattern of females are often different from the overall picture, as found in comparison of Table 2, Table 3-1, and Table 3-2.

- Immigrants who received their bachelor's degrees in Canada earn more income than those immigrants whose bachelor's degrees were not likely conferred in Canada; when income was adjusted, the former group earned on average about $4,000 more than the later group in both analyses summarized in Table 4-1 and Table 4-2.
- Receiving Canadian bachelor degree helps immigrants of non-European ethnic origins earn more income. When they all received their bachelor's degrees outside Canada, generally immigrants of European ethnic origins earned more than the mean income whereas those of non-European ethnic origins earned less than the mean income as reported in the Table 4-1. However, this pattern faded when they all received their bachelor's degrees in Canada; not only the effect of ethnicity was no longer statistically significant, but also immigrants of some ethnic minority group earned over the mean income as seen in the Table 4-2. Especially, immigrants of East/South East Asian origin fell into the lowest income group when they were educated outside Canada, but they earned well above the mean income when they were educated in Canada. It was also found, however, that having a Canadian bachelor's degree did not help raise the income status for immigrants of West Asia & Arab, Filipino, and Black ethnic origins.

- Although immigrants of European ethnic origins seemed to earn higher income than those of non-European ethnic origins regardless of the timing of their immigration, it was not certain to what extent such ethnic or racial differences influenced their income status in the analysis summarized in Table 5 due to uneven ethnic breakdowns and small cell frequencies.
- When educated outside Canada, members of visible minorities were highly represented in clerical, medicine/health, sales & services, and primary occupations; whereas those who were not visible minorities were highly represented in managerial/ administrative, teaching, natural sciences, and social sciences etc. occupations. Although some small proportional differences exist, this pattern was generally similar in both WHEREDUC categories, with the exception of the natural sciences occupations. When they were educated in Canada, the occupational pattern within the members of visible minorities was changed to a large extent. The largest proportion of visible minority immigrants educated in Canada were reported to work in natural science occupations. In the case of immigrants who were not members of visible minority groups, the occupational distribution was more similar in both WHEREDUC categories.
- Immigrants who were educated in Canada showed higher representation in professional occupations than those who were educated outside Canada, as reported in Table 8 and Table 9.

CONCLUSIONS

This study attempted to verify the thesis that receiving Canadian post-secondary education may help immigrants be more easily incorporated into the Canadian economic market. To examine the thesis, income and occupation of immigrants who received their degrees in Canada have been compared to those of immigrants who received such degrees outside Canada. Based on 1986 Census data, findings of a demographic analysis on these groups suggest that immigrants, especially those of non-European ethnic origins, benefit from receiving Canadian post-secondary education in improving their economic status in Canada; immigrants with Canadian bachelor's degrees were found to have higher income and occupational status than those with foreign degrees, and this was more apparent among immigrants of visible minority group.

This study, however, has limitations on its findings due to its utilization of a variable WHEREDUC. Since data which informed both the place of bachelor's degree conferred for immigrants and their socioeconomic status after their immigration were not available, this study used 1986 Census data and indirectly derived information on the place of bachelor's degree education by creating a variable WHEREDUC. As a result, the figures presented in the data analysis section cannot be regarded as exact estimates of people who represent each category of WHEREDUC or exact measure of the differentials in income and occupational status among them. Nonetheless, the findings in this study show a rough picture of the adaptation tendency of immigrants in Canada and the impact of having Canadian post-secondary education on

this process. Why having Canadian post-secondary education had a positive effect in improving immigrant's job and occupational status has not been clearly investigated in this study, although some theoretical discussions were stated in Chapter II, and this will remain as a subject of further researches.

As Henry and Tator claimed cultural equality does not promote total equality (Henry and Tator, 1985:329). Multiculturalism and affirmative action policies may be helpful to reduce inequality in ethnic relations, but their effectiveness largely depends on their degree of implementation. As Bolaria and Li points out, multiculturalism without means or without a changing superstructure is in vain and superficial (Bolaria and Li, 1988).

Immigrants should not be exploited or deprived in any sense in terms of culture, education, occupation, or self-esteem in Canadian society. Increasing the access to educational institutions including higher educational agencies would help them adapt to Canada without much mental deprivation, and it also would assist Canada in realizing an equal society. To this end, I would like to recommend two things; first, immigrants who wish to receive more education to upgrade their qualifications should be encouraged to do so. Introducing a more flexible admission policy for these people would help them to achieve this goal. Second, education of visible miniority immigrants should be stressed as a group with multiple-challenges. Considering the fact that those visible minority immigrants, especially female members, were highly represented in the lower stratum of occupational status but they improved their status well when they were educated in Canada,

more opportunities of education for them should be provided to promote equality in Canadian society.

Finally, I propose to conduct further research on this subject. A further research should entail more elaborated approaches to the independent and intervening variables of this study; it will deal with different levels of education of immigrants in Canada and it will differentiate immigrants by different level of command of English/French, length of residence in Canada, field of study and so on, as well as by ethnic groups, gender, and age. A survey which asks immigrants about their upgrading or retraining in Canada and their adaptation status, including social-psycological and economic aspect, is desired for such a further study. The findings of the study will contribute to a better understanding of the adaptation process of immigrants in Canada and the effective role of education in fully integrating those immigrants into Canadian society.

Table 1. Ethnicity, Gender, and WHEREDUC

Ethnic Origin (Number)		Bachelor Degree in Canada....(A) Number (Female/Male)		Bachelor Degree Not in Canada....(B) Number(Female/Male)		% Conferred in Canada...
Italian	(180)	163	(55/108)	17	(10/7)	91
Portuguese	(38)	33	(17/16)	5	(1/4)	87
Ukrainian	(45)	39	(18/21)	6	(2/4)	87
Dutch	(128)	84	(30/54)	44	(18/26)	66
Polish	(82)	50	(26/24)	32	(16/16)	61
German	(187)	102	(39/63)	85	(34/51)	55
Jewish	(158)	78	(34/44)	80	(29/51)	49
Greek	(53)	26	(12/14)	27	(10/17)	49
Chinese	(558)	262	(105/157)	296	(142/154)	47
British	(792)	357	(141/216)	435	(178/257)	45
French	(111)	50	(28/22)	61	(35/26)	45
Croatian etc.	(51)	23	(10/13)	28	(10/18)	45
Hungarian	(58)	26	(12/14)	32	(7/25)	45
Scandinavian	(49)	19	(7/12)	30	(11/19)	39
W Asian/Arab	(171)	47	(19/28)	124	(47/77)	28
Black	(152)	38	(17/21)	114	(43/71)	25
South Asian	(445)	108	(50/58)	337	(138/199)	24
E/SE Asia	(177)	32	(14/18)	145	(61/84)	18
Filipino	(313)	10	(5/5)	303	(185/118)	3
Total	(3,748)	1,547	(639/908)	2,201	(977/1,224)	41

Table 2. Mean Income of Immigrants

Ethnic Origin	Number	Difference from Mean Income ($)	
		Observed	Adjusted[1]
Jewish	144	5,662.92	5,434.03
Scandinavian	45	5,900.63	4,766.74
Hungarian	56	10,690.16	4,397.64
Ukrainian	41	8,404.63	3,355.54
Greek	45	2,513.52	3,225.96
British	722	5,814.22	3,005.37
Italian	171	4,017.75	2,893.04
German	171	4,559.45	397.33
Polish	76	839.35	-155.61
Chinese	508	-3,238.44	-295.05
Dutch	121	3,809.48	-932.61
Portuguese	35	-5,428.56	-1,108.81
Croatian/Serbian	49	100.99	-1,666.45
Black	143	-2,970.12	-2,021.84
French	101	-2,555.15	-2,043.89
W Asian/ Arab	146	-5,161.54	-2,071.75
South Asian	396	-5,404.03	-2,431.94
Filipino	300	-5,836.07	-4,390.23
E/SE Asian	163	-7,173.42	-4,818.29

WHEREDUC	Number	Difference from Mean Income ($)	
		Observed	Adjusted[2]
Canada	1,438	77.44	2,526.97
Not Canada	1,995	-55.82	-1,821.45

Gender	Number	Difference from Mean Income ($)	
		Observed	Adjusted[3]
Male	2,037	5,555.37	3,466.36
Female	1,396	-8,106.23	-5,058.01

Grand mean income of all groups = $28,128.929
% Variation in income accounted for by all factors = 38.2%

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[1] Income is adjusted for WHEREDUC, gender, age, weeks of work, and hours of work.
[2] Income is adjusted for ethnicity, gender, age, weeks of work, and hours of work.
[3] Income is adjusted for ethnicity, WHEREDUC, age, weeks of work, and hours of work.

Table 3-1. Mean Income of Immigrants by Gender

Female (1,616 Cases)

Ethnic Origin	Number	Difference from Mean Income ($)	
		Observed	Adjusted[1]
Black	57	4,629.96	3,356.23
Southern European	90	3,515.15	3,336.21
Jewish	58	1,155.23	1,962.89
British	267	2,996.24	1,093.87
Chinese	213	-144.34	1,001
Eastern European	90	1,210.04	-440.91
South Asian	152	-4,234.43	-779.42
Filipino	182	361.09	-913.32
Dutch/ Scandinavian	56	-2,330.33	-1,170.16
French	53	-1,021.72	-1,229.62
E/SE Asian	68	-3,265.82	-2,129.23
German	60	-3,053.49	-4,208.2
W Asian/Arab	50	-7,151.58	-5,166.59

WHEREDUC	Number	Difference from Mean Income ($)	
		Observed	Adjusted[2]
Canada	571	399.3	2,477.56
Not Canada	825	-276.36	-1,714.77

Grand mean income of all groups = $20,022.703
% Variation in income accounted for by all factors = 37.9%

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[1] *Income is adjusted for WHEREDUC, age, weeks of work, and hours of work.*
[2] *Income is adjusted for ethnicity, age, weeks of work, and hours of work.*

Table 3-2. Mean Income of Immigrants by Gender

Male (2,132 Cases)

Ethnic Origin	Number	Difference from Mean Income ($)	
		Observed	Adjusted1[1]
Jewish	86	8,614.62	7,269.15
Scandinavian	30	6,451.37	5,262.68
British	455	6,669.32	4,184.61
Italian	113	1,908.1	2,777.36
German	111	7,500.92	2,190.87
Eastern European	132	6,813.07	1,882.31
W Asian /Arab	96	-5,458.44	-187.31
Greek/ Portuguese	48	-1,806.01	-326.57
Dutch	80	6,328.62	-1,024.27
Chinese	295	-5,174.88	-1,091.87
French	48	-853.05	-2,948.37
South Asian	244	-6,638.23	-3,834.38
Black	86	-8,190.02	-4,778.24
E/SE Asian	95	-9,723.46	-6,404.28
Filipino	118	-8,446.94	-8,121.78

WHEREDUC	Number	Difference from Mean Income ($)	
		Observed	Adjusted[2]
Canada	867	-351.2	2,569.81
Not Canada	1,170	260.25	-1,904.3

Grand mean income of all groups = $33,684.300

% Variation in income accounted for by all factors = 33.7%

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[1] Income is adjusted for WHEREDUC, age, weeks of work, and hours of work.

[2] Income is adjusted for ethnicity, age, weeks of work, and hours of work.

Table 4-1. Mean Income of Immigrants by WHEREDUC

Bachelor Degree Not in Canada (2,201 Cases)

Ethnic Origin	Number	Difference from Mean Income ($)	
		Observed	Adjusted[2]
British	388	9,409.23	5,895.62
Jewish	75	4,046.96	4,319.07
Other N/W European	200	3,060.41	1,352.63
Southern European	42	1,753.56	1,218.93
Eastern European	92	4,013.86	501.89
Chinese	270	-2,966.7	-114.13
Black	107	-457.46	-819.01
West Asian/ Arab	101	-2,231.94	-1,168.45
South Asian	296	-4,460.75	-2,992.11
Filipino	291	-5,521.16	-3,635.2
E/SE Asian	133	-7,570.58	-6,010.19

Gender	Number	Difference from Mean Income ($)	
		Observed	Adjusted[2]
Male	1,170	5,871.44	3,926.24
Female	825	-8,326.77	-5,568.12

Grand mean income of all groups = $28,073.111
% Variation in income accounted for by all factors = 35.9%

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[1] Income is adjusted for gender, age, weeks of work, and hours of work.
[2] Income is adjusted for ethnicity, age, weeks of work, and hours of work.

Table 4-2. Mean Income of Immigrants by WHEREDUC

Bachelor Degree Received in Canada (1,547 Cases)

Ethnic Origin	Number	Difference from Mean Income ($)	
		Observed	Adjusted[1]
Jewish	69	7,402.65	5,123.51
E/SE Asian	30	-5,242.63	2,653.27
Southern European	209	2,500.74	2,113.71
Eastern European	130	4,905.93	835.67
South Asian	100	-8,108.37	559.3
Chinese	238	-3,560.82	-208.47
British	334	1,625.38	-364.16
Other N/W European	238	2,641.69	-2,281.15
West Asian/ Arab	45	-11,689.01	-3,139.41
Black	36	-10,349.84	-3,683.58
Filipino	9	-14,290.7	-5,712.35

Gender	Number	Difference from Mean Income ($)	
		Observed	Adjusted[2]
Male	867	5,126.73	2,980.57
Female	571	-7,784.37	-4,525.67

Grand mean income of all groups = $ 28,206.368
% Variation in income accounted for by all factors = 42.9%

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[1] Income is adjusted for gender, age, weeks of work, and hours of work.
[2] Income is adjusted for ethnicity, age, weeks of work, and hours of work.

Table 5. Mean Income by Year of Immigration

A. Before 1965 (1,299 Cases)

Ethnic Origin	Number	Difference from Group Mean*	
		Income ($)	Age (Years)
Jewish	62	4,768.28	1.01
German	124	1,954.34	1.82
Other European	216	576.61	-0.08
British	429	388.69	1.86
Italian	145	342.25	-6.37
Dutch	94	-1,624.07	0.03
Polish	54	-2,174.68	-1
Chinese	62	-3,076.79	-4.1
Other non-European	113	-3,699.44	1.4

*Group Mean: Income = $33,837.527 and Age = 41.798

B. 1966 - 1975 (1,512 Cases)

Ethnic Origin	Number	Difference from Group Mean*	
		Income ($)	Age (Years)
British	255	3,888.97	1.11
West Asian/ Arab	59	3,744.85	0.2
Jewish	54	1,285.27	-2.43
Chinese	312	598.7	-2.6
Filipino	190	-1,048.38	3.58
Black	90	-1,264.22	0.04
Other European	224	-1,946.99	-0.88
East/ S E Asian	83	-2,157.33	1.84
South Asian	245	-2,206.85	0.03

*Group Mean: Income = $24,786.077 and Age = 37.038

C. 1976 - 1986 (936 Cases)

Ethnic Origin	Number	Difference from Group Mean*	
		Income ($)	Age (Years)
Jewish	42	11,999.55	1.7
British	107	9,959.58	0.4
Black	38	97.2	0.05
Filipino	111	-672.97	2.11
Chinese	184	-1,361.01	-2.08
Other European	125	-1,374.13	0.56
South Asian	165	-2,566.95	-1.45
East/ S E Asian	81	-2,908.64	2.41
West Asian/ Arab	83	-5,027.85	0.09

*Group Mean: Income = $17,419.356 and Age = 32.848

Table 6. Occupation of Immigrants by Ethnic Origins

Ethnic Origin (Number)	Manage/ Adminis % (Num)	Natural Sci. etc % (Num)	Social Sci. etc % (Num)	Teach-ing % (Num)	Medl./ Health % (Num)	Clerical % (Num)	Sale & Service % (Num)	Primary etc % (Num)	Other % (Num)
Scandinavian (45)	31.1 (14)	20.0 (9)	8.9 (4)	4.4 (2)	8.9 (4)	8.9 (4)	8.9 (4)	6.7 (3)	2.2 (1)
Jewish (144)	27.8 (40)	13.9 (20)	12.5 (18)	10.4 (15)	2.1 (3)	10.4 (15)	20.1 (29)	2.8 (4)	0.0 (0)
Hungarian (56)	26.8 (15)	25.0 (14)	7.1 (4)	7.1 (4)	7.1 (4)	14.3 (8)	5.4 (3)	7.1 (4)	0.0 (0)
British (722)	25.9 (187)	16.2 (117)	6.8 (49)	19.0 (137)	4.0 (29)	8.7 (63)	10.1 (73)	6.9 (50)	2.4 (17)
Dutch (121)	24.8 (30)	19.8 (24)	5.8 (7)	22.3 (27)	4.1 (5)	6.6 (8)	8.3 (10)	6.6 (8)	1.7 (2)
Greek (45)	24.4 (11)	15.6 (7)	2.2 (1)	20.0 (9)	4.4 (2)	15.6 (7)	11.1 (5)	6.7 (3)	0.0 (0)
Polish (76)	23.7 (18)	15.8 (12)	11.8 (9)	11.8 (9)	2.6 (2)	7.9 (6)	17.1 (13)	5.3 (4)	3.9 (3)
W Asian/Arab (146)	23.3 (34)	15.8 (23)	4.8 (7)	8.2 (12)	4.1 (6)	17.8 (26)	18.5 (27)	4.8 (7)	2.7 (4)
German (171)	22.8 (39)	13.5 (23)	2.9 (5)	19.9 (34)	4.1 (7)	7.6 (13)	15.2 (26)	8.2 (14)	5.8 (10)
Italian (171)	22.2 (38)	11.7 (20)	7.0 (12)	28.1 (48)	2.9 (5)	12.9 (22)	9.4 (16)	5.3 (9)	.6 (1)
South Asian (396)	21.0 (83)	16.2 (64)	2.8 (11)	4.5 (18)	6.1 (24)	18.9 (75)	11.4 (45)	14.4 (57)	4.8 (19)
Chinese (508)	19.5 (99)	27.8 (141)	3.3 (17)	4.9 (25)	9.3 (47)	18.9 (96)	11.2 (57)	3.5 (18)	1.6 (8)
Ukrainian (41)	17.1 (7)	22.0 (9)	12.2 (5)	24.4 (10)	7.3 (3)	2.4 (1)	9.8 (4)	2.4 (1)	2.4 (1)
E/SE Asian (163)	16.0 (26)	20.2 (33)	3.1 (5)	.6 (1)	9.2 (15)	15.3 (25)	23.9 (39)	10.4 (17)	1.2 (2)
Black (143)	15.4 (22)	6.3 (9)	11.9 (17)	19.6 (28)	9.1 (13)	15.4 (22)	7.0 (10)	10.5 (15)	4.9 (7)
French (101)	14.9 (15)	9.9 (10)	24.8 (25)	22.8 (23)	5.9 (6)	8.9 (9)	5.9 (6)	6.9 (7)	0.0 (0)
Croatian etc. (49)	14.3 (7)	28.6 (14)	12.2 (6)	6.1 (3)	2.0 (1)	10.2 (5)	14.3 (7)	8.2 (4)	4.1 (2)
Portuguese (35)	11.4 (4)	17.1 (6)	8.6 (3)	5.7 (2)	8.6 (3)	25.7 (9)	14.3 (5)	5.7 (2)	2.9 (1)
Filipino (300)	8.0 (24)	10.3 (31)	.7 (2)	2.0 (6)	26.3 (79)	29.0 (87)	12.3 (37)	9.0 (27)	2.3 (7)

Table 7. Occupation of Immigrants by Visible Minority

Occupation	Visible Minority % (Number)	Not Vsible M % (Number)
Managerial / Administrative	17.5 (292)	23.9 (421)
Natural Sciences / Engineering / Mathematics	18.2 (303)	16.0 (283)
Social Science / Artistic / Literary / Recreational	3.5 (59)	8.4 (148)
Teaching	5.5 (91)	18.2 (322)
Medicine / Health	11.1 (185)	4.1 (73)
Clerical	20.0 (334)	9.5 (167)
Sales & Services	12.9 (215)	11.7 (206)
Primary / Processing / Construction / Transport	8.5 (142)	6.3 (112)
Other	2.8 (47)	2.1 (38)
Total	100 (1,668)	100 (1,765)

Table 8. Occupation of Immigrants by WHEREDUC and Visible Minority

Occupation	Bachelor Degree in Canada				Bachelor Degree Not in Canada			
	Visible Minority % (Number)		Not Vsible M % (Number)		Visible Minority % (Number)		Not Vsible M % (Number)	
Managerial / Administrative	19.7	(91)	23.6	(230)	16.7	(201)	24.2	(191)
Natural Sciences / Engineering / Mathematics	27.2	(126)	13.5	(132)	14.7	(177)	19.1	(151)
Social Science / Artistic / Literary / Recreational	4.3	(20)	9.1	(89)	3.2	(39)	7.5	(59)
Teaching	6.5	(30)	19.3	(188)	5.1	(61)	17.0	(134)
Medicine / Health	8.9	(41)	4.5	(44)	12.0	(144)	3.7	(29)
Clerical	17.7	(82)	10.9	(106)	20.9	(252)	7.7	(61)
Sales & Services	10.8	(50)	11.1	(108)	13.7	(165)	11.8	(93)
Primary / Processing / Construction / Transport	3.0	(14)	6.2	(60)	10.6	(128)	6.6	(52)
Other	1.9	(9)	1.8	(18)	3.2	(38)	2.5	(20)
Total	100	(463)	100	(975)	100	(1,205)	100	(790)

Table 9. Occupation of Immigrants by WHEREDUC, Gender, and Visible Minority

Occupation	Bachelor Degree in Canada				Bachelor Degree Not in Canada			
	Female		Male		Female		Male	
	Visible Minority	Not Visible M	Visible Minority	Not Visible M	Visible Minority	Not Visible M	Visible Minority	Not Visible M
Managerial / Administra.	19.5%	14.1%	19.8%	29.5%	10.0%	15.4%	22.0%	29.4%
Natural Sciences etc.	14.4%	6.1%	36.6%	18.2%	5.8%	5.1%	21.7%	27.4%
Social Sciences etc.	6.2%	11.2%	3.0%	7.8%	4.7%	9.2%	2.1%	6.4%
Teaching	10.3%	29.0%	3.7%	13.2%	7.1%	27.3%	3.4%	10.9%
Medicine / Health	11.8	9.0%	6.7%	1.7%	21.2%	8.9%	4.6%	0.6%
Clerical	26.2%	19.4%	11.6%	5.5%	31.8%	18.1%	12.3%	1.6%
Sales & Services	8.2%	7.7%	12.7%	13.2%	11.7%	12.6%	15.3%	11.3%
Primary etc.	2.1%	2.7%	3.7%	8.3%	4.7%	2.7%	15.3%	8.9%
Other	1.5%	0.8%	2.2%	2.5%	3.0%	0.7%	3.3%	3.6%
Total (Number)	100% (195)	100% (376)	100% (268)	100% (599)	100% (532)	100% (293)	100% (673)	100% (497)

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